

ENGINEER BOS

1. Survivability Graphic.

9/13/16

1. Hasty Protective Minefield Record.

Hasty Protective Minefield Record

Magnetic North

___P

___P

___P

___P

0 Pace

___P

___P

___P

___P

Scale: 2 cm to ___ PACES

Azimuth Block

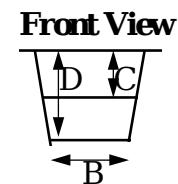
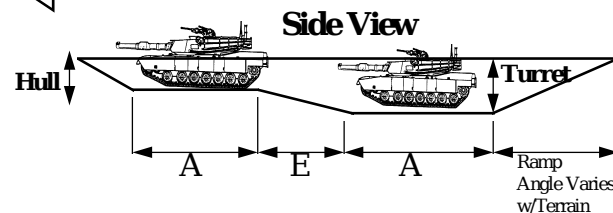
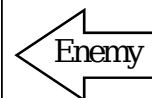
Enemy



Block Tabular Block

Row	Type	Actuation	Mine Number

Identification

 Unit:
 Reference Point:


Dimensions (M) / (FT).

Vehicle	A	B	C	D	E
M1 Tank	9.8 m/32 ft	4.9 m/16 ft	1.7 m/6 ft	2.7 m/9 ft	4.9 m/16 ft
M2/M3 BFV	8.0 m/26 ft	4.3 m/14 ft	2.1 m/7 ft	3.0 m/10 ft	4.0 m/13 ft
M981 FIST-V	6.7 m/22 ft	4.3 m/14 ft	2.1 m/7 ft	3.3 m/9 ft	3.3 m/11 ft
M113 APC	6.7 m/22 ft	4.3 m/14 ft	1.8 m/6 ft	2.3 m/7.5 ft	3.3 m/11 ft

Blade Teams.

VEHICLE	HULL	TURRET	TOTAL
M-1	1 hour	2 hour	2.5 hour
TANK PLT	4 hours	8 hours	10 hours
M3	1 hour	2 hour	2.5 hour
SCT PLT	6 hours	12 hours	15 hours
FIST-V	45 minutes	1 hour 45 minutes	2 hours
M113	40 minutes	1 hour 20 minutes	1.5 hours

Dozer.

Vehicle	Hull	Turret	Total	
			Loose Sand	Rock/Clay
M1	40 minutes	1 hour 50 minutes	2.5 hours	3.5 hours
TANK PLT	2 hours 40 minutes	7 hours 20 minutes	10 hours	14 hours
M3	40 minutes	1 hour 50 minutes	2.5 hours	3.5 hours
SCT PLT	4 hours	11 hours	15 hours	21 hours
FIST-V	35 minutes	1 hour 25 minutes	2 hours	3 hours
M113	30 minutes	1 hour 15 minutes	1.8 hours	2.5 hours

ACE.

Vehicle	Hull	Turret	Total	
			Loose Sand	Rock/Clay
M1	1 hour	3 hours	4 hours	5 hours
TANK PLT	4 hours	12 hours	16 hours	20 hours
M3	40 minutes	3 hours	4 hours	5 hours
SCT PLT	4 hours	18 hours	20 hours	30 hours
FIST-V	45 minutes	1 hour 50 minutes	2.5 hours	3.5 hours
M113	40 minutes	1 hour 40 minutes	2.5 hours	3.5 hours

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1. Obstacle Definition Graphics.

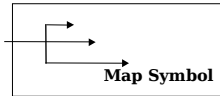
a. **DISRUPT**

- Disrupt formations.
- Break up command and control.
- Cause enemy too piecemeal his force into fire.
- Long arrow indicates bypass.

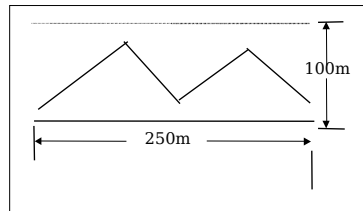
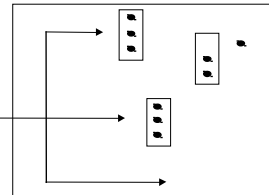
Note

--- Buried mines
— Surface laid mines

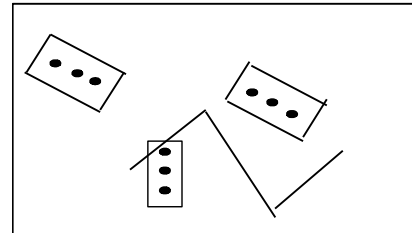
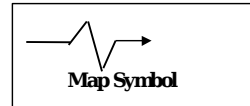
* mines are 6 meters apart



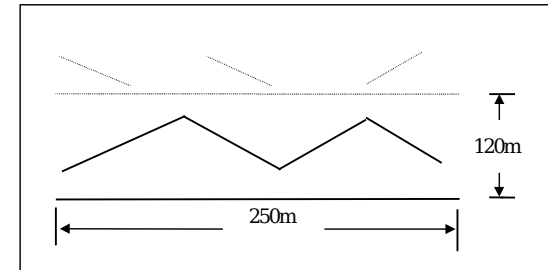
PLT HRS REQ'D = 1.5

. **FIX**

- Run depth of EA.
- Slow enemy's advance within a specified engagement area mines
- Cause attacker to breach repeatedly.
- Focus fires on enemy stopped in obstacle.



PLT HRS REQ'D = 1.5

**Note**

--- Buried mines
— Surface laid

* mines are 6 meters apart

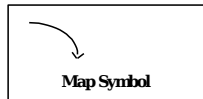
c. **TURN**

- Must cover with tank fires.
- Fires must be strongest at point turn starts.
- Manipulate enemy maneuver in a desired direction.

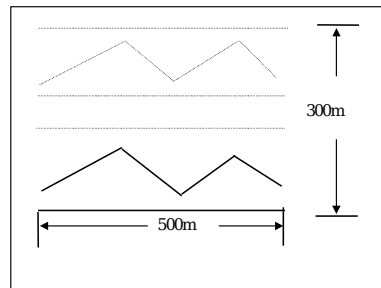
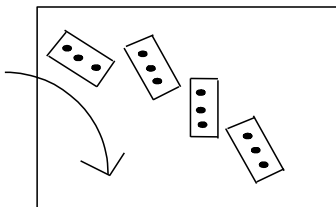
Note

--- Buried mines
— Surface laid mines

* mines are 6 meters apart



PLT HRS REQ'D = 3.5

d. **BLOCK**

- Fires focus on stopping all breach attempts.
- Stop attacker along an AA.
- No bypasses.

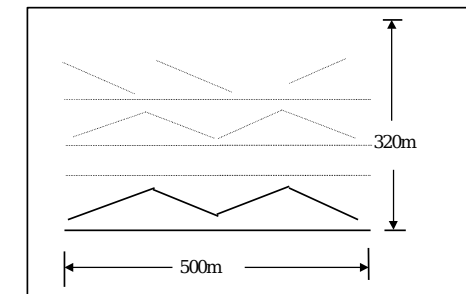
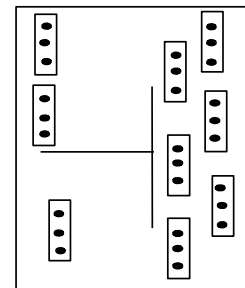
Note

--- Buried mines
— Surface laid mines

* mines are 6 meters apart



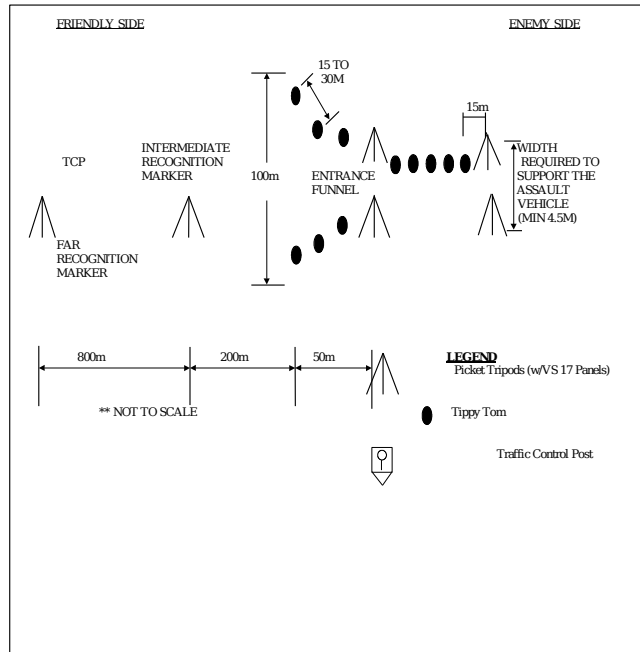
PLT HRS REQ'D = 5



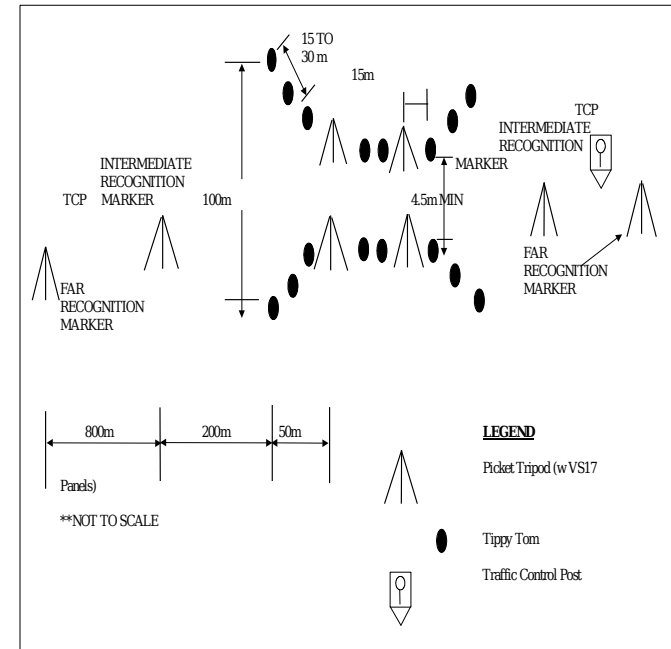
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1. Initial Lane Marking System



1. Intermediate Lane Marking System



Time/ Mission Matrix.

PLT + 8 HOURS	1000 METERS	MINES
PLT + 1 HOUR	300 METERS	TRIPLE STRAND WIRE
ACE + 1 HOUR	50 METERS	AT DITCH
PLT + 1 HOUR	50 METERS	ABATIS
PLT + 1 HOUR	65 METERS	CRATER
SQD + 1 HOUR		POINT MINEFIELD
SQD +12-24 HOURS	MLC 60	BRIDGE DEMO
SQD + 1 HOUR		UNPACK 100 MINES

1. Class IV Requirements.

- Triple Standard Concertina (100 meters).
 - Picket, Long (U) 54 ea.
 - Wire, Barbed (Reel) 1 ea.
 - Picket, Short (U) 4 ea.
 - Concertina Wire (Roll) 20 ea.
- Abatis (20 inch diameter trees) or Bridge Demolition (2 lane Class 60).
 - Explosive, C4 173 lbs.
 - Detonating Cord 2000 feet
 - Time Fuse 20 feet
 - Non-electric Caps 19 ea.
 - Electric Caps 1 ea.
 - Fuse Lighter 1 ea.
 - Mine, AT M15 8 ea.
 - Mine, AT M16 8 ea.
- Row Minefield (M15) (100 meters by 100 meters)
 - Three Strip Surface Laid. 100 ea.
 - Triple Standard Concertina 1 set per 100 meters
- Survivability Positions (1 Two-Man Position).
 - Plywood, 3/4", 4' x 8' 1 sheet
 - Picket, Short (U) 4 ea.
 - Sandbags 200 ea.
 - Picket, Long (U) 16 ea.